

REMARKS

This amendment is filed along with a Request for Continued Examination. The amendment is believed to require further considerations and/or search, as a request for an interview to discuss the amendment prior to filing was denied for being a substantive nature. The application is amended in a manner believed to place it in condition for allowance.

Claim 23, 48 and 50 are amended. Support for the amended claims may be found, for example, at specification page 9, lines 22-30, and page 11, lines 30-35.

Claims 23-25 and 28-80 remain pending in the application.

Claim 48 is rejected under 35 USC 112, second paragraph, as a being indefinite. This rejection is respectfully traversed.

The position of the Official Action is that the percent weight of glycerol ether recited in claim 48, which further limits the weight ratio recited in claim 23, suggests an amount of alcohol greater than 100%.

However, applicants respectfully note that claim 23 is directed to a method using a composition having a specific weight ratio of glycerol ether to aromatic alcohol. Claim 48 is directed preparing the composition of claim 23 by diluting a concentrate of about 5 to 5% by weight glycerol ether. Claim 48, as well as

claim 50, is amended for the purpose of clarifying the dilution step.

Therefore, claim 48 is definite, and withdrawal of the rejection is respectfully requested.

Claims 23-25, 28-33, 35-40, 42, 43, 45-63, 65, 70, and 72 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE et al. US 5,539,001 ("WALDMANN-LAUE") in view of TU et al. WO 92/09309 ("TU"). This rejection is respectfully traversed.

WALDMANN-LAUE is offered for teaching disinfecting hard surfaces with an aromatic alcohol and an alkyl glycerol ether when  $x=0$  and  $R_2$  is a  $C_{6-22}$  alkoxyethyl group for  $R_2-CHOH-(CH_2)_x-CH_2OH$  for formula II, as well as a salt and magnesium. WALDMANN-LAUE is also offered for teaching using either anhydrous or aqueous solutions for treatment with a weight ratio of aromatic alcohol to formula II of 9:1 to 1:9, which includes 0.11 as the lowest possible glycerol ether to aromatic alcohol ratio.

The position of the Official Action is that "0.11" is "so close" to the claimed ratio that the claimed ratio would have been obvious over WALDMANN-LAUE. The Official Action acknowledges that WALDMANN-LAUE fails to disclose the treatment at temperatures other than room temperature, hard surfaces, medical instruments, and specific treatment times.

TU is offered for teaching sterilization of hard surfaces, by submersion, with a glycidyl ether and aromatic

alcohol mixture, "percent kill can usually be increased just by increasing the temperature of the solution and/or extending the sterilization time", and treatment temperature from room temperature to about 100°C.

However, the combination fails to teach the claimed invention of independent claim 23.

The claimed weight ratio of glycerol ether to aromatic alcohol of independent claim 23 is in the range of 0.07 to 0.04. This is not "so close" to the ratio of 0.11-9 suggested in the specification of WALDMANN-LAUE, as the claimed ratio is more than 36% lower than the lowest ratio suggested by WALDMANN-LAUE. Indeed, the ratio of claimed invention is far lower than the apparently preferred embodiments of WALDMANN-LAUE, e.g., a "suitable" concentrate with a ratio of 0.33-3, the claimed ratio of 0.33-3, and the multiple examples of a ratio of 1. See, e.g., column 2, lines 43-59, the claims, and the examples.

Moreover, there is no suggestion to select a ratio in the range of 0.07 to 0.04. TU fails to disclose or suggest the claimed ratio, and, thus, cannot remedy the shortcomings of WALDMANN-LAUE for reference purposes with respect to independent claim 23. Accordingly, one of ordinary skill in the art would have been strongly discouraged from reducing the lowest suggested ratio of WALDMANN-LAUE by more than 36%, as the teachings of WALDMANN-LAUE, taken as a whole, suggest a ratio of 0.33-3 is suitable.

Thus, the proposed combination cannot render obvious independent claim 23, and dependent claims 24, 25, 28-33, 35-40, 42, 43, 45-63, 65, 70, and 72.

Therefore, withdrawal of the rejection is respectfully requested.

Claim 34 is rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of TU, further in view of LANGFORD US 5,906,802 ("LANGFORD"). This rejection is respectfully traversed.

WALDMANN-LAUE and TU are offered for the reasons discussed above.

LANGFORD is offered for teaching alternating cycles of pressure and suction to assist in cleaning.

However, LANGFORD fails to disclose or suggest a ratio of glycol ether to aromatic alcohol as recited in independent claim 23. Thus, LANGFORD cannot remedy the shortcomings of WALDMANN-LAUE and TU for reference purposes, and the proposed combination fails to render obvious claims 23 and 34.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 41 and 71 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of TU, and further in view SAUD et al US 2004/0001797 ("SAUD"). This rejection is respectfully traversed.

WALDMANN-LAUE and TU are offered for the reasons discussed above.

SAUD is offered for teaching a disinfecting composition that is sprayed and may comprises a glycerol ether, alcohol, and triclosan in combination.

However, SAUD fails to disclose or suggest the recited weight ratio of independent claim 23. Thus, SAUD does not remedy the deficiencies of WALDMANN-LAUE for reference purposes, and the proposed combination fails to render obvious claims 23, 41 and 71.

Therefore, withdrawal of the rejection is respectfully requested.

Claim 44 is rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of TU, further in view of MINER et al US 6,096,348 ("MINER"). This rejection is respectfully traversed.

WALDMANN-LAUE and TU are offered for the reasons discussed above.

MINER is offered for teaching that it is well known that endoscopes are difficult to sterilize due to their sensitivity to high temperatures and pressures.

However, MINER fails to disclose or suggest the recited weight ratio of independent claim 23. Thus, MINER does not remedy the deficiencies of WALDMANN-LAUE for reference purposes,

and the proposed combination fails to render obvious claims 23 and 44.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 64 and 66-68 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of TU, and further in view of EGGENSPERGER et al US 5,393,789 ("EGGENSPERGER"). This rejection is respectfully traversed.

WALDMANN-LAUE and TU are offered for the reasons discussed above.

EGGENSPERGER is offered for teaching suitable aromatic alcohols used for antimicrobial compositions, such as phenyl ethanol, phenyl propanol, benzyl alcohol, phenoxyethanol, and phenoxypropanol, and oligoalkanol aryl ethers.

However, EGGENSPERGER fails to disclose or suggest the recited weight ratio of glycerol ether to such aromatic alcohols as recited in independent claim 23. Thus, EGGENSPERGER cannot remedy the shortcomings of WALDMANN-LAUE for references purposes, and the proposed combination fails to render obvious claims 23, 64, 66-68.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 73 and 74 are rejected under 35 USC 103(a) as being unpatentable over LANGFORD in view of WALDMANN-LAUE. This rejection is respectfully traversed.

LANGFORD is offered for teaching sterilizing a medical instrument by cleaning, disinfecting with a sterilant, rinsing with sterile water, and drying. The Official Action recognizes that LANGFORD fails to disclose (1) the use of an alkyl glycerol ether as the sterilant and (2) any specific sterilizing time. The Official Action nevertheless concludes that it would have been obvious to optimize the time the sterilant is in contact with the instrument depending upon the sterilant concentration, temperature and amount.

WALDMANN-LAUE is offered for teaching disinfecting hard surfaces with an aromatic alcohol and a glycerol ether having a C<sub>6-22</sub> alkoxyethyl group. The position of the Official Action is that because WALDMANN-LAUE is effective at low-temperatures, it would have been an obvious choice for the sterilization process of LANGFORD.

However, the proposed combination cannot teach the claimed invention.

Neither LANGFORD nor WALDMANN-LAUE disclose or suggest disinfecting thermochemical treatment for 1 to 20 minutes as recited in independent claim 73. LANGFORD is directed to sterilizing a medical instrument, and is silent as to time and thermochemical treatment. WALDMANN-LAUE discloses disinfection

and preserving at room temperature, but in order to sterilize, or destroy all bacteria and fungi, WALDMANN-LAUE requires greater than 3 days at room temperature (i.e. based on the sample times of 1, 3, 7, 14, and 21 days). Accordingly, the combination teaches, at best, chemical treatment at room temperature for greater than 3 days.

Moreover, one of ordinary skill in the art would have been strongly discouraged from reducing the time required by WALDMANN-LAUE to 1 to 20 minutes for the purpose of sterilization required by LANGFORD, as 1 to 20 minutes represent merely 0.069% to 0.46% of a 3 day time period, and WALDMANN-LAUE requires more than 3 days to kill both bacteria and fungi. Even if one were to utilize the thermal treatment in combination with the chemical treatment of WALDMANN-LAUE, there is no suggestion in either document that an increase in temperature could reduce the sterilization time from more than 3 days to 1-20 minutes, or that the heat would not harm the medical instruments.

Therefore, the proposed combination does not render obvious claims 73 and 74, and withdrawal of the rejection is respectfully requested.

Claims 73-80 are rejected under 35 USC 103(a) as allegedly being unpatentable over LANGFORD in view of WALDMANN-LAUE and TU. This rejection is respectfully traversed.

LANGFORD is offered for the reasons discussed above relative to the rejection of claims 73 and 74 above. The Official



Action recognizes LANGFORD fails to teach a treatment time, such as 1 to 20 minutes as recited in claim 73.

WALDMANN-LAUE is offered for the reasons discussed relative to the rejection of claims 73 and 74 above.

TU is offered for teaching "percent kill can usually be increased just by increasing the temperature of the solution and/or sterilization time", and specifically that treatment of hard surfaces is generally maintained from room temperature to 100°C for 5 to 120 hours. Thus, TU fails to disclose or suggest that thermochemical disinfection is even possible from about 1 to about 20 minutes of disinfection.

Indeed, TU only confirms that which is suggested by WALDMANN-LAUE. In order to sterilize, or destroy all bacteria and fungi, WALDMANN-LAUE requires greater than 3 days at room temperature (i.e. based on the sample times of 1, 3, 7, 14, and 21 days). Accordingly, based on the teachings of TU and WALDMANN-LAUE, one of ordinary skill in the art would have been strongly discouraged from selecting 1-20 minutes treatment time for the sterilization for LANGFORD, when both publication disclose days for sterilization, with TU suggesting no less than 5 hours, even at 100°C.

Thus, neither WALDMANN-LAUE nor TU can remedy the shortcomings of LANGFORD for reference purposes, and the proposed combination fails to render obvious independent claim 73 and dependent claims 75-80.

Therefore, withdrawal of this rejection is respectfully requested.

Claims 23-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 31-33, 37, and 51-53 of Application No. 10/445,715 in view of TU. This rejection is respectfully traversed.

Pursuant to MPEP 804 B, applicants respectfully request that the provisional double patenting rejection continue to be made until the provisional double patenting rejection is the only rejection remaining in at least one of the applications.

Claims 73-81 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting being unpatentable over claims 67-73, 75 and 80 of Application No. 10/825,266.


Pursuant to MPEP 804 B, applicants respectfully request that the provisional double patenting rejection continue to be made until the provisional double patenting rejection is the only rejection remaining in at least one of the applications.

In view of the amendment to the claims and the forgoing remarks, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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